



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,858	12/31/2003	Joseph Whitehead	2003P08292US01	6335
7590 11/10/2005			EXAMINER	
Harold C. Moore Maginot, Moore & Beck Bank One Center/Tower, Suite 3000 111 Monument Circle Indianapolis, IN 46204-5115			BHAT, ADITYA S	
			ART UNIT	PAPER NUMBER
			2863	
DATE MAILED: 11/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary**

Application No.

10/749,858

Applicant(s)

WHITEHEAD, JOSEPH

Examiner

Aditya S. Bhat

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) 2 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1 and 3-21 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 18 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-7 and 11-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (USPN 5,446,677).

With regards to claim 1, Jensen et al. (USPN 5,446,677) teaches a system and a method for automatically testing in parallel multiple variable air volume (VAV) boxes coupled to the same floor level network comprising:

communicating with a floor level network from a building level network; (Col. 1, lines 52-55 & 67-68) (see figure 1) and

sending at least one test parameter associated with a first test procedure to a first VAV box coupled to the floor level network, the first VAV box having a first configuration; (Col. 7, lines 63-65) and

sending at least one test parameter associated with a second test procedure to a second VAV box coupled to the floor level network so that the first and second VAV boxes are responding to a test parameter associated with different test procedures at approximately the same time (col.8, line 5), the second VAV box having a second configuration, wherein the first test procedure is inapplicable to the second configuration (Col. 8, lines 1-10) (Refer to figure 1)

With regards to claim 11, Jensen et al. (USPN 5,446,677) teaches a system for automatically testing in parallel multiple variable air volume (VAV) boxes coupled to the same floor level network comprising:

a building level network interface for communicating with a floor level network from a building level network;(see figure 1) and

a test manager for sending at least one test parameter to a plurality of variable air volume (VAV) boxes coupled to the floor level network so that at least two VAV boxes are responding to the one test parameter at approximately the same time, the test manager operable to send different test parameters to different VAV boxes based on different design configurations of the different VAV boxes.( Col.8, lines 1-25)

With regards to claim 12, Jensen et al. (USPN 5,446,677) teaches sending at least one test parameter associated with a first test procedure to a first VAV box coupled to the floor level network; (Col.8, lines 33-34) and sending at least one test parameter associated with a second test procedure to a second VAV box coupled to the floor level network so that the first and second VAV boxes are responding to a test parameter associated with different test procedures at approximately the same time. (Col.8, lines 33-34)

With regards to claims 3 and 13, Jensen et al. (USPN 5,446,677) teaches sending a calibration procedure parameter to the first VAV box coupled to the floor level network; and delaying before sending the calibration procedure parameter to a third VAV box (Col.3, lines 65-68) coupled to the floor level network so that the first and third

Art Unit: 2863

VAV boxes are not responding to the calibration procedure parameter at approximately the same time. (Col. 8, lines 10-12) (Col.12, line 14)

With regards to claims 4 and 14, Jensen et al. (USPN 5,446,677) teaches receiving test messages from the first and second VAV boxes coupled to the floor level network and analyzing the test messages received from the first and second VAV boxes to determine whether a VAV box passed a test. (Col.8, lines 14-16)

With regards to claims 5 and 15, Jensen et al. (USPN 5,446,677) teaches determining a cause for a test failure from at least one test message received from at least one VAV box. (Col.8, lines 14-20)

With regards to claims 6 and 16, Jensen et al. (USPN 5,446,677) teaches generating a warning in response to a VAV box passing a test, the warning indicating a marginal condition in the VAV box. (Col.8, lines 14-20)

With regards to claims 7 and 17, Jensen et al. (USPN 5,446,677) teaches polling a plurality of devices coupled to the floor level network; determining from an identifier in a response to the polling whether a device is a VAV box; and storing the identifier in a VAV procedure list in response to a determination that the device is a VAV box. (Col.8, lines 17-20) (Col.1, lines 52-55)

With regards to claim 19, Jensen et al. (USPN 5,446,677) teaches terminating testing of a VAV box coupled to the floor network in response to the VAV box failing to calibrate. (Col.1, lines 62-63)

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (USPN 5,446,677) in view of Hartman (USPN 5,605,280).

With regards to claim 8, Jensen et al. (USPN 5,446,677) a method for automatically testing in parallel multiple variable air volume (VAV) boxes coupled to the same floor level network comprising:

communicating with a floor level network from a building level network; (Col. 1, lines 52-55 & 67-68) (see figure 1)

sending at least one test parameter to a plurality of variable air volume (VAV) boxes (Col. 7, lines 63-64) coupled to the floor level network (Refer to figure 1) so that at least two VAV boxes are responding to the one test parameter at approximately the same time. (Col. 8, lines 1-25)

sending at least one test parameter from a calibration procedure, an auto zero module procedure, a damper operation and airflow procedure, and a control function procedure to at least one of the VAV boxes coupled to the floor level network. (Col. 8-11 lines 35-67, 1-68, 1-68 & 1-20)

With regards to claim 9, Jensen et al. (USPN 5,446,677) teaches terminating testing of a VAV box coupled to the floor network in response to the VAV box failing to calibrate. (Col.1, lines 62-63)

With regards to claim 10, Jensen et al. (USPN 5,446,677) teaches determining whether a temperature message received from a VAV box in response to a test parameter for the heating function procedure contains a room temperature or a discharge temperature. (Col.1, lines 42-46)

With regards to claim 20, Jensen et al. (USPN 5,446,677) teaches determining whether a temperature message received from a VAV box in response to a test parameter that contains a room temperature or a discharge temperature. (Col.1, lines 42-46)

With regards to claim 21, Jensen et al. (USPN 5,446,677) teaches sending at least one test parameter from a calibration procedure, an auto zero module procedure, a damper operation and airflow procedure, and a control function procedure to the first VAV box. (Col.8-11 lines 35-67,1-68,1-68 &1-20)

Jensen et al. (USPN 5,446,677) does not appear to explicitly disclose a heating function procedure.

Hartman (USPN 5,605,280) teaches a heating function procedure. (Col. 8, lines 41-48)

It would've been obvious to one skilled in the art at the time of the invention to modify the Jensen et al. (USPN 5,446,677) invention to include the heating function procedure taught by Hartman (USPN 5,605,280) in order to arrive upon the claimed

### 3. *Response to Amendment*

In this instance applicant argues that the prior art of record does not teach sending at least one test parameter associated with a first test procedure to a first VAV box coupled to the floor level network, the first VAV box having a first configuration; (Col. 7, lines 63-65) and sending at least one test parameter associated with a second

test procedure to a second VAV box coupled to the floor level network so that the first and second VAV boxes are responding to a test parameter associated with different test procedures at approximately the same time (col.8,line 5), applicant goes on to argue that the prior art of record does not teach the different tests correspond to the different configurations. According to Merriam Webster dictionary a configuration is merely a relative arrangement of parts or elements. Therefore the open and closing the boxes is a reasonable interpretation of a test configuration.

With respect to claims 8-10 and 20-21, the arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sekhar et al. (USPUB 2003/0146289) teaches a energy efficient variable air volume (VAV) system with zonal ventilation control and Kline et al. (USPN 6,250,560) teaches a variable air volume diffuser actuator assembly and method.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2863

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat  
November 07, 2005

BRYAN BUI  
PRIMARY EXAMINER

  
11/8/05